

## REMARKS

### Status of the Claims

Claims 1 and 29 have been canceled without prejudice to or disclaimer of the subject matter contained therein. Claim 30 has been amended to recite a peptide-modified polymer composition comprising one or more "pentapeptides" covalently bound to a "hyaluronic acid" layer. Support for these amendments may be found throughout the specification, for example on page 4, lines 8-11; in Table 1 (page 25); and in claims 1 and 29 as originally filed. Claim 38 has been amended to correct dependency and to recite a "polymer surface" that is formed from a flexible material. Support for these amendments may be found in claim 16 as originally filed. New claims 67-85 have been added. Support for new claims 67-85 may be found throughout the specification, for example on page 4, lines 8-11 and Table 1 (page 25), wherein pentapeptides lacking an RGD sequence are disclosed, and original claim 11, wherein compositions that can be used in accordance with the methods of the invention can be modified to include a peptide comprising the RGD sequence; on page 11, lines 28-30, wherein suitable CAR materials are disclosed; on page 23, lines 1-12, wherein the claimed cell types are disclosed; on page 27, line 4, continuing through page 31, line 2; and in claims 1, 29, and 66 as originally filed. No new matter has been added by way of claim amendment or presentation of new claims. Claims 30, 31, 38, and 65-85 are now pending in the present application. Reexamination and reconsideration of the claims are respectfully requested.

The Examiner's comments in the Office Action are addressed below in the order set forth therein.

### Amendment to the Specification

The specification has been amended on page 1, lines 3-4 to correct a typographical error in the serial number of a related application. The correct serial number is found on the application transmittal form, which accompanied the filing of the present application on September 26, 2003.. As no new matter is added, entry of this amendment is respectfully requested.

The Rejections of the Claims Under 35 U.S.C. § 102(b) Should Be Withdrawn

Claims 1, 29, and 30 have been rejected under 35 U.S.C. §102(b) as allegedly being anticipated by Glass *et al.* (*Biomaterials* 17:1101-08, 1996). Claims 1 and 29 have been canceled, rendering this rejection moot as applied to these claims. This rejection is traversed as applied to claim 30.

Glass *et al.* disclose an RGD-containing 18-amino acid peptide covalently coupled to hyaluronic acid to form an osteosarcoma cell attachment matrix. Applicants have amended claim 30 to recite a method of growing adherent cells, including providing a cell adhesion promoting peptide-modified polymer composition comprising a polymer surface, a hyaluronic acid layer bonded to the polymer surface, and one or more pentapeptides covalently bound to the hyaluronic acid layer. Consequently, Applicants submit that Glass *et al.* do not anticipate nor render obvious pending claim 30, and respectfully ask that this rejection be withdrawn.

Claims 1, 29-31, 65, and 66 have been rejected under 35 U.S.C. §102(b) as allegedly being anticipated by Mayes *et al.* (U.S. Patent No. 6,150,459; hereinafter the '459 patent). Claims 1 and 29 have been canceled, rendering this rejection moot as applied to these claims. This rejection is traversed as applied to the remaining claims.

The '459 patent discloses compositions including a hydrophobic backbone with hydrophilic non-cell binding side chains end-capped with adhesion peptides, and their use in attaching rat hepatocytes to a substrate. Applicants have amended claims 30, 31, 65, and 66 to recite a method of growing adherent cells, including providing a cell adhesion promoting peptide-modified polymer composition comprising a polymer surface, a hyaluronic acid layer bonded to the polymer surface, and one or more pentapeptides covalently bound to the hyaluronic acid layer. Consequently, Applicants submit that the '459 patent does not anticipate nor render obvious pending claims 30, 31, 65, and 66, and respectfully ask that this rejection be withdrawn.

Claims 1, 29-31, and 38 have been rejected under 35 U.S.C. §102(b) as allegedly being anticipated by Brandley *et al.* (*Analytical Chemistry* 172:270-78, 1988). Claims 1 and 29 have

been canceled, rendering this rejection moot as applied to these claims. This rejection is traversed as applied to the remaining claims.

Brandley *et al.* disclose an RGD-containing nonapeptide covalently coupled to polyacrylamide gel surfaces to form a fibroblast cell attachment composition. Applicants have amended claims 30, 31, and 38 to recite a method of growing adherent cells, including providing a cell adhesion promoting peptide-modified polymer composition comprising a polymer surface, a hyaluronic acid layer bonded to the polymer surface, and one or more pentapeptides covalently bound to the hyaluronic acid layer. Consequently, Applicants submit that Brandley *et al.* do not anticipate nor render obvious pending claims 30, 31, and 38, and respectfully ask that this rejection be withdrawn.

Claims 1 and 29-31 have been rejected under 35 U.S.C. §102(e) as allegedly being anticipated by Campbell *et al.* (Published U.S. Patent Application No. 20030162289; hereinafter the '289 application). Claims 1 and 29 have been canceled, rendering this rejection moot as applied to these claims. This rejection is traversed as applied to the remaining claims.

The '289 application discloses adhesion promoting peptides, suitable for promoting adherence of cells on surfaces. As discussed above, Applicants have amended claims 30 and 31 to recite a method of growing adherent cells, including providing a cell adhesion promoting peptide-modified polymer composition comprising a polymer surface, a hyaluronic acid layer bonded to the polymer surface, and one or more pentapeptides covalently bound to the hyaluronic acid layer. Applicants submit that the combination of hyaluronic acid and pentapeptides is not disclosed by the '289 application, and that the '289 application therefore does not anticipate nor render obvious pending claims 30 and 31. Applicants respectfully ask that this rejection be withdrawn.

Appl. No.: 10/670,771  
Amdt. Dated November 23, 2005  
Reply to Office Action of August 25, 2005

### CONCLUSION

In view of the foregoing amendments and remarks, Applicants respectfully submit that all the objections and rejections have been obviated or overcome and the claims are in condition for allowance. Early notice to this effect is solicited. If, in the opinion of the Examiner, a telephone conference would expedite the prosecution of the subject Application, the Examiner is invited to call the undersigned attorney.

It is not believed that extensions of time or fees for net addition of claims are required, beyond those that may otherwise be provided for in documents accompanying this paper. However, in the event that additional extensions of time are necessary to allow consideration of this paper, such extensions are hereby petitioned under 37 CFR § 1.136(a), and any fee required therefore (including fees for net addition of claims) is hereby authorized to be charged to Deposit Account No. 16-0605.

Respectfully submitted,



David E. Cash  
Registration No. 52,706

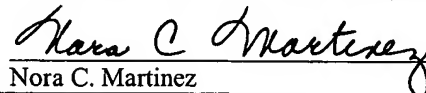
Customer No. 47656  
**ALSTON & BIRD LLP**  
Bank of America Plaza  
101 South Tryon Street, Suite 4000  
Charlotte, NC 28280-4000  
Tel Raleigh Office (919) 862-2200  
Fax Raleigh Office (919) 862-2260

#### CERTIFICATE OF EXPRESS MAILING

"Express Mail" Mailing Label Number EV395777229US

Date of Deposit: November 23, 2005

I hereby certify that this paper or fee is being deposited with the United States Postal Service "Express Mail Post Office to Addressee" service under 37 CFR 1.10 on the date indicated above and is addressed to: MAIL STOP AMENDMENT, Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450

  
Nora C. Martinez